GROUP 00

GENERAL

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HOW TO USE THIS MANUAL

M2000029000242

MODEL INDICATIONS

The following abbreviations are used in this manual for identification of model types.

1100: Indicates models equipped with the 1,124 mL <134910> petrol engine.

1300: Indicates models equipped with the 1,332 mL <135930> petrol engine.

1500: Indicates models equipped with the 1,499 mL <13590> petrol engine.

DOHC: Indicates an engine with the double overhead camshaft.

MIVEC: Indicates Mitsubishi innovative valve timing electronic control system.

MPI: Indicates the multipoint injection.

M/T: Indicates the manual transmission.

A/C: Indicates the air conditioner.

TARGETS OF DEVELOPMENT

M2000004000342

COLT has been developed as entry model of Mitsubishi model line-up, as compact passenger car with space MPV versatility.

PRODUCT FEATURES

M2000005000174

ADVANCED AND FASHIONABLE STYLING

The one motion silhouette which consists of roominess and stylish appearance.

NEWLY DEVELOPED ENGINE WITH GOOD FUEL EFFICIENCY AND EXCELLENT POWER-DRIVEN PERFORMANCE

- 134910-DOHC MIVEC* engine with 3-cylinder
- 135930-DOHC MIVEC engine and 135950-DOHC MIVEC engine with 4-cylinder

*NOTE: *MIVEC: Mitsubishi Innovative Valve timing Electronic Control system is a generic term for the engine with variable valve timing mechanism.*

HIGH LEVEL OF SAFETY

- Reinforced Impact Safety Evolution (RISE) chassis adopted
- Driver's SRS airbag equipped as standard
- Front passenger's SRS airbag, SRS side airbag, and SRS curtain airbag adopted <Optional>
- ISO FIX child seat fixing bar equipped as standard

EXCELLENT PRACTICABILITY AND SPACE UTILITY

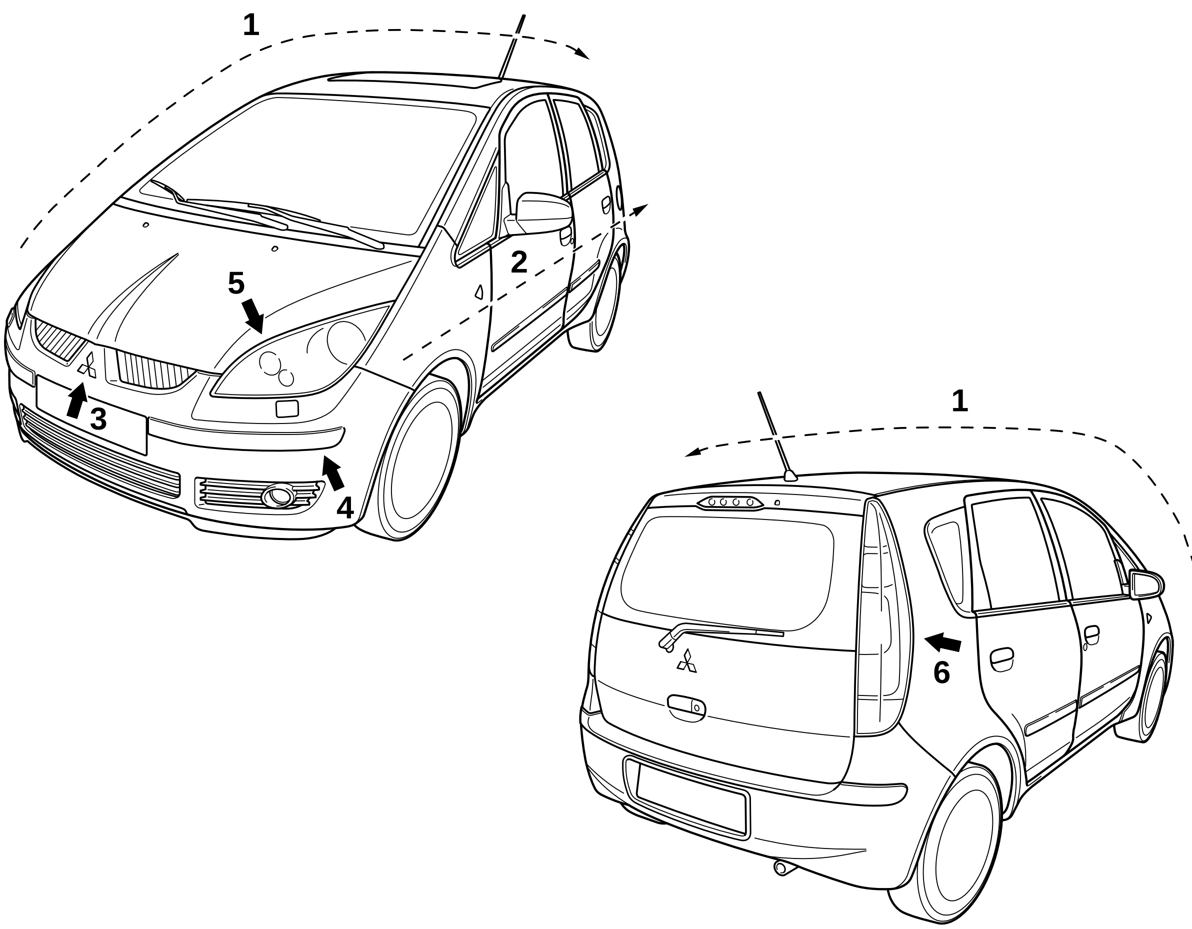
- Multi function box storage as cup holder, ashtray, small item holder, etc.
- 6:4 separate sliding, tumbling and removable rear seat.

TECHNICAL FEATURES

EXTERIOR

M2000017000331

DESIGN FEATURES



AC311182 AC

OVERALL

- Dynamic one motion line connects chamfered front end.
- Simple body side section emphasis the wheel arches.
- Dynamic DLO (day light opening) creates car is motion even when car is stop.
- Front lights on the chamfered surface follows one of the Mitsubishi identity.
- Inside of the light reflectors given high-tech image of Japanese product.
- Simple exterior design emprises car’s functionality.
- Door cut’s matching the lines of the DLO and rear light.

1. SIDE SILHOUETTE

Simple and dynamic one motion curve from the front nose to the roof end.

2. BODY SIDE SURFACE

Take simple and clean surface to emphasize wheel arches.

3. MITSUBISHI MARK

New Mitsubishi front face which designed every elements connects from three diamonds.

4. FRONT END CORNER

Apply the chamfer shape for easy handling.

5. HEAD LAMP

Create the high-tech image of Japanese product.

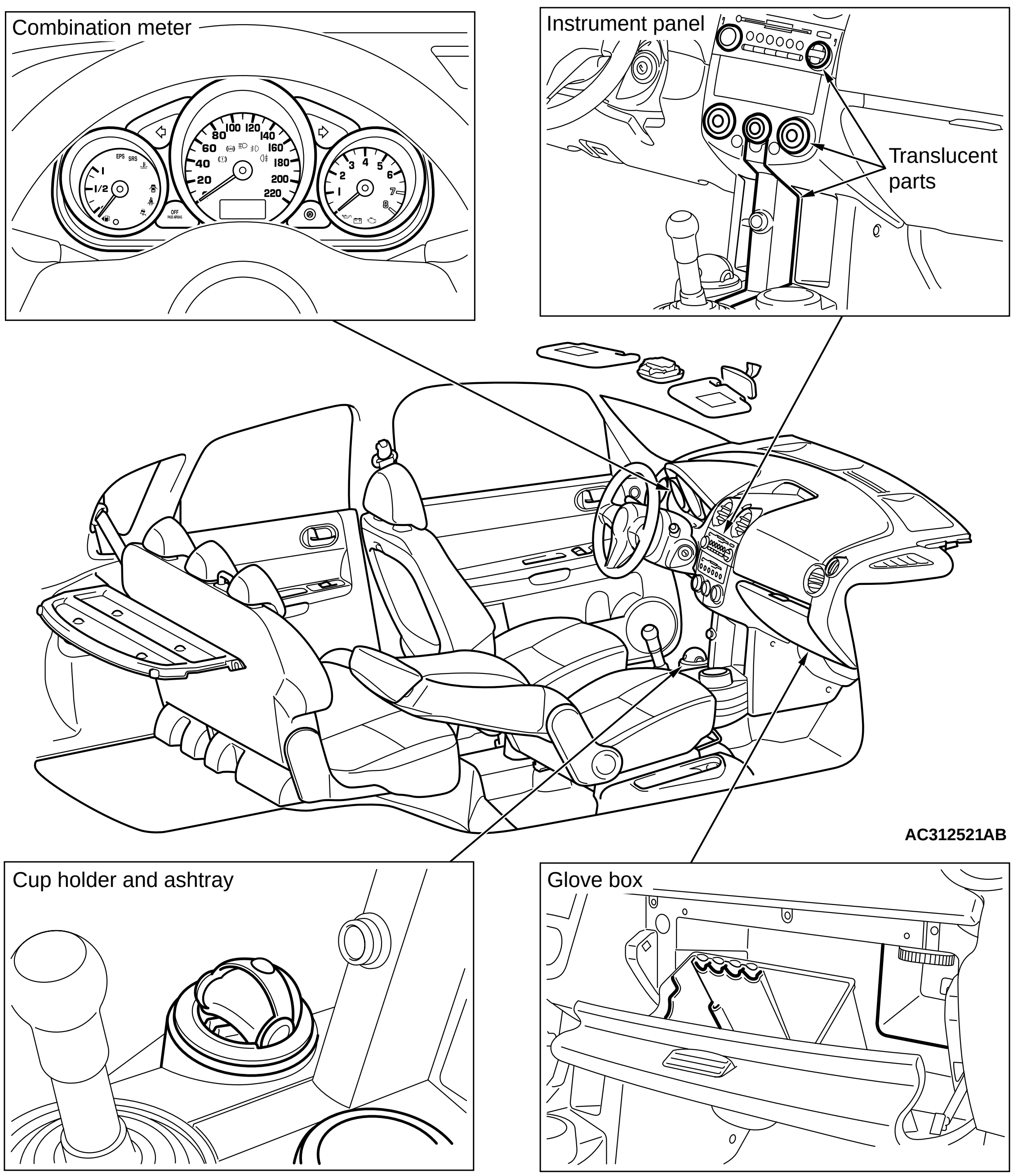
6. TAIL LAMP

Apply long vertical type to easy to recognize from outside.

INTERIOR

M2000018000312

DESIGN FEATURES



OVERALL

- Sporty elegance feeling with comfortable space.
- The maximum roominess in the limited package.

INSTRUMENT PANEL

- Illumination systems presented by translucent parts of audio and A/C control panel
- Searchlight system from translucent parts.
- Useful glove box (card holder, pen holder, coin holders and bottle holder).

FLOOR CONSOLE AND DOOR TRIM

- Multi cup holder.
- Removable ashtray (This ashtray can be set in all cup holders).

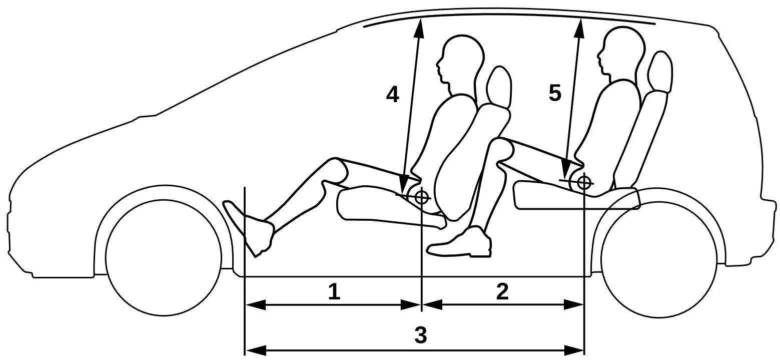
COMBINATION METER

- Easy to recognize, independent function meters.

SPACIOUS CABIN

M2000000400025

By the adoption of the long wheelbase, it realizes the interior length of the top-class.



No.	Item	Dimension mm	No.	Item	Dimension mm
1	Brake pedal room	880	4	Front head room	931
2	Hip point couple	825	5	Rear head room	862
3	Total leg room	1,705			

NOTE: Refer to P.00-23 for the body dimensions.

ENGINE

M2000020000223

The following three types of newly developed engines have been adopted to realize light weight, small size, and good fuel efficiency. Those engines are complied with Step 4 in European emissions regulations.

Item		134910	135930	135950
Total displacement mL		1,124	1,332	1,499
Bore × stroke mm		75 × 84.8	75 × 75.4	75 × 84.8
Compression ratio		10.5		
Combustion chamber		Pentroof-type		
Valve timing	Intake opening	BTDC 41° – ATDC 9°	BTDC 41° – ATDC 9°	BTDC 41° – ATDC 9°
	Intake closing	ABDC 19° – ABDC 69°	ABDC 3° – ABDC 53°	ABDC 11° – ABDC 61°
	Exhaust opening	BBDC 35°	BBDC 35°	BBDC 39°
	Exhaust closing	ATDC 5°	ATDC 5°	ATDC 5°
Maximum output kW(PS)/rpm		55(75)/6,000	70(95)/6,000	80(109)/6,000
Maximum torque N·m(kg-m)/rpm		100(10.2)/3,500	125(12.7)/4,000	145(14.8)/4,000

TRANSMISSION

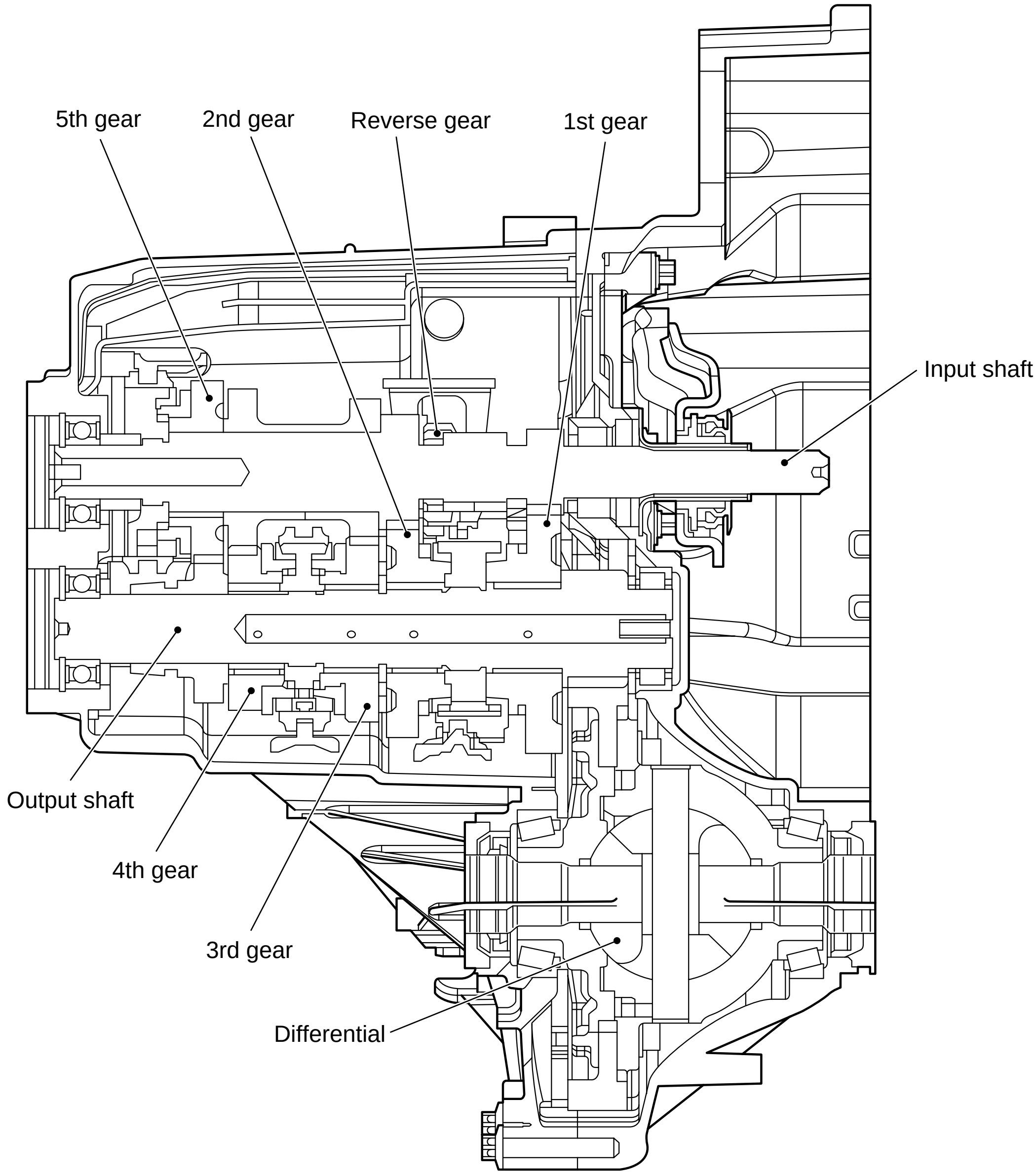
M2000021000226

The following two types of newly developed transmissions with light weight and small-size design have been adopted to realize good fuel efficiency.

- F5MGA 5-speed manual transmission
- F6SGA 6-speed automated manual transmission

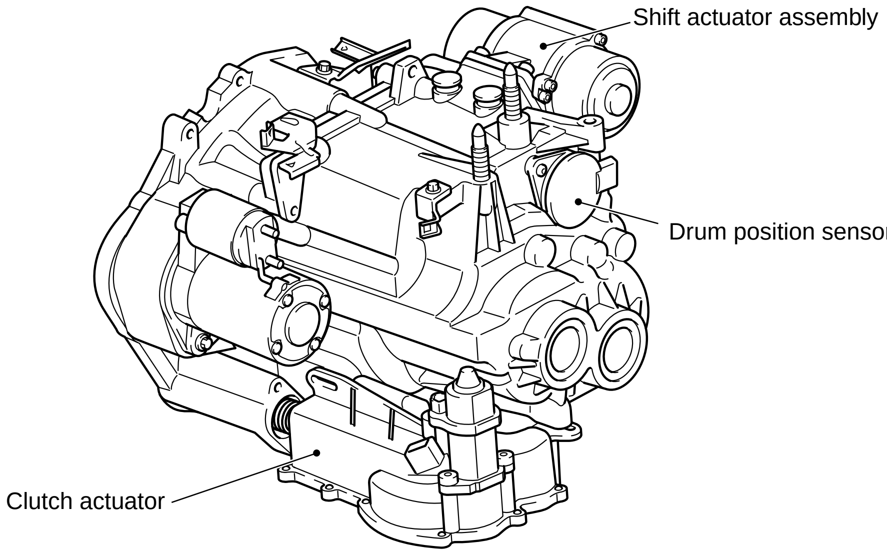
MANUAL TRANSMISSION

SECTIONAL VIEW



AUTOMATED MANUAL TRANSMISSION

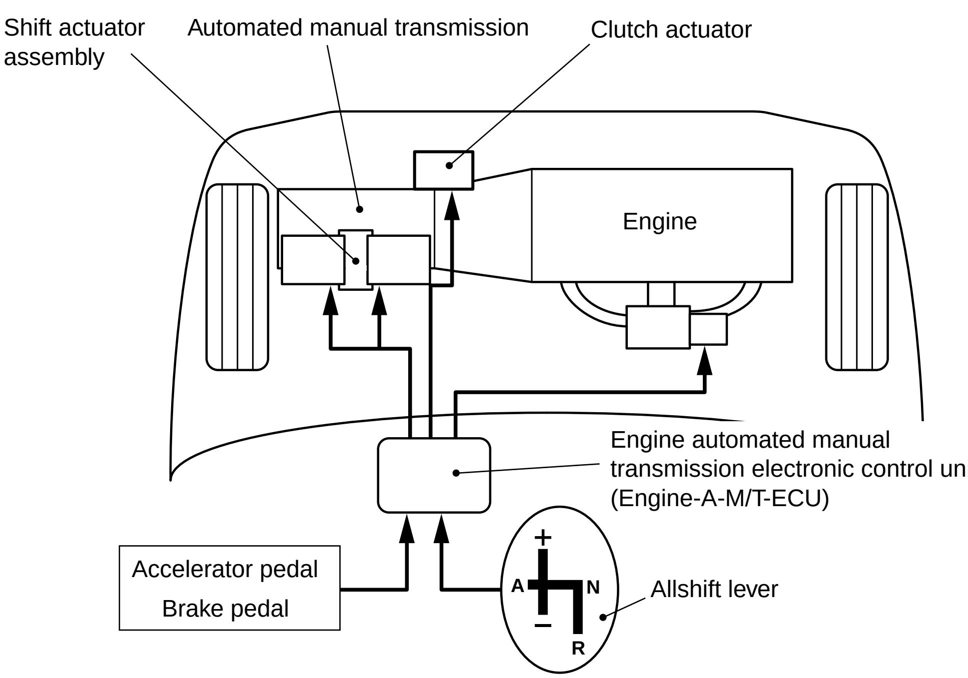
OUTSIDE VIEW



AC311791AB

As automated manual transmission is designed based on 6-speed manual gearbox and driven by electric actuators (motors) via sophisticated twin-drum shift mechanism, it gives our customers "easy to drive as A/T", "fun to drive and high fuel efficiency as M/T".

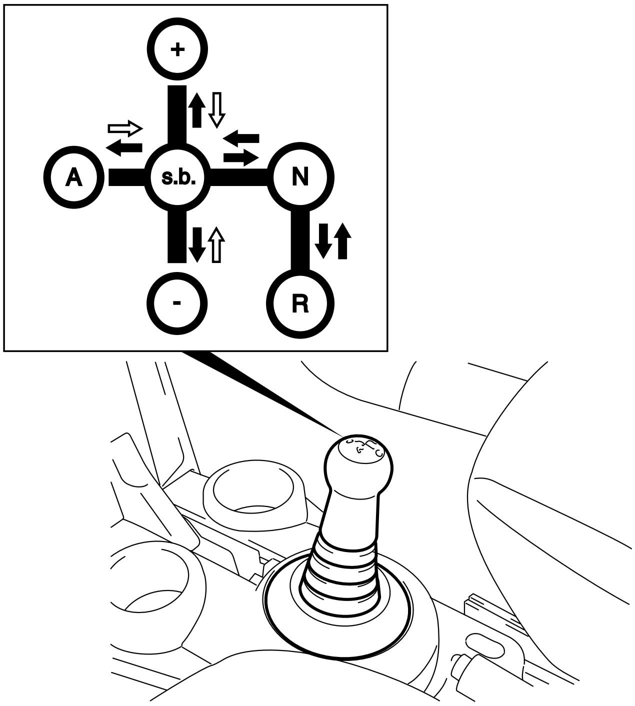
SCHEMATIC DIAGRAM



AC311704AB

DRIVING MODE

Driving mode provides either manual mode (like sequential M/T) or automatic mode (like conventional A/T), by tipping shift lever toward "A" or "+" or "–" from "s.b." position.



+: Up shifting

s.b.: Stand by (manual selection of gear)

–: Down shifting

A: Switch automatic↔manual mode

N: Neutral

R: Reverse gear

⇦: Automatic resume

⬅: Manual operation

AC312516AB

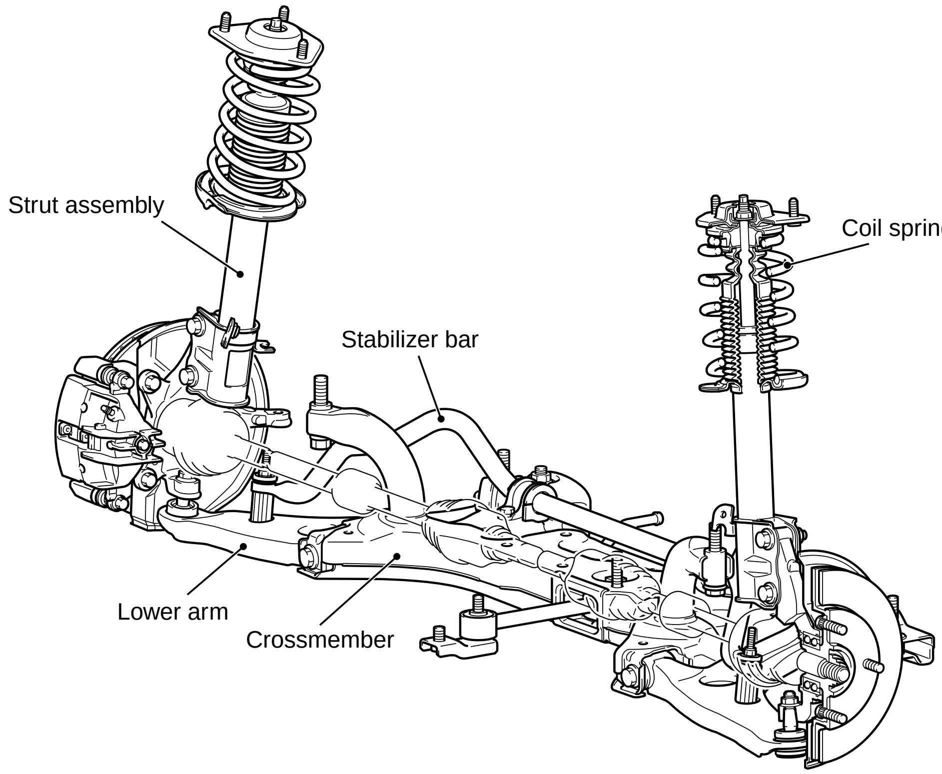
Position	Operation	Function	Further explanation
"N"	In "N"	Neutral	Engine start possible only at "N".
"R"	"N" → "R"	Reverse drive	No creeping.
s.b. (stand by)	"N" → s.b.	Forward drive	Creeping starts (with brake pedal depress).
		Auto mode or Manual mode	Starts from auto mode. <135950>
			Starts from manual mode. <135930>
"A"	s.b. → "A" (tip)	Mode change	Auto mode or Manual mode comes alternatively. (Auto mode → Manual mode → Auto mode → Manual mode)
"+", "–"	s.b. → "+" (tip) s.b. → "–" (tip)	+: Manual up shifting	Higher gear will be selected. *1, *2
		–: Manual down shifting	Lower gear will be selected. *1, *3
		*1: After "+" or "–" tip action, mode becomes manual mode. *2: If vehicle speed is too low, some up shifts neglected. *3: If engine speed is too high, down shifting neglected.	

SUSPENSION

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FRONT SUSPENSION

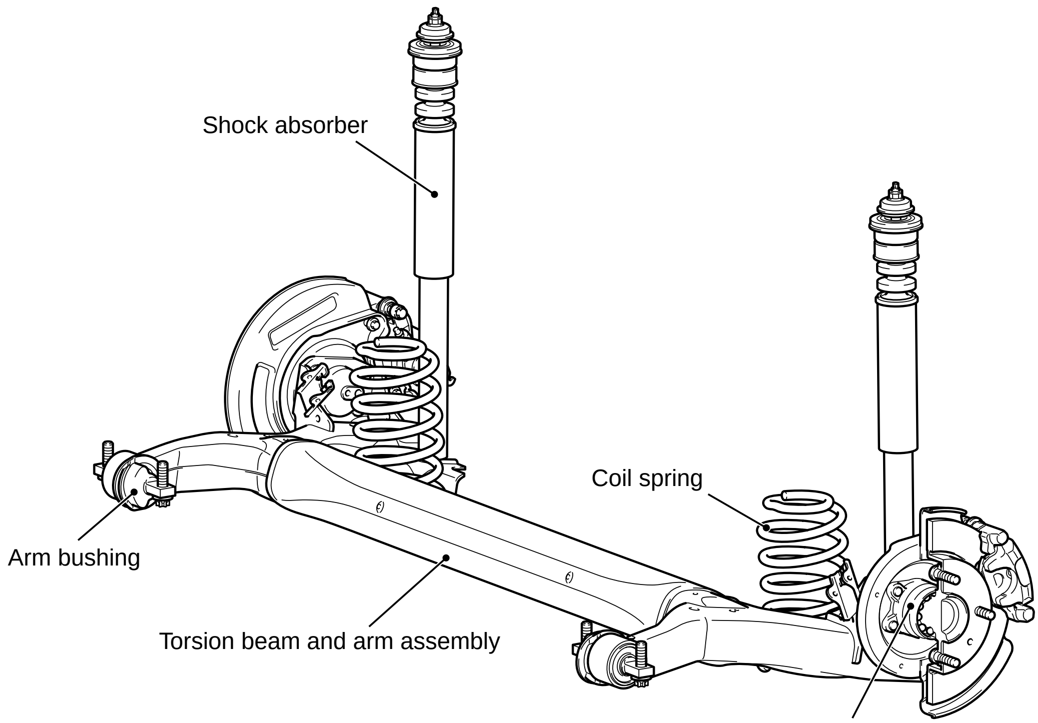
The newly developed MacPherson Strut suspension with compatible characteristics of high rigidity and light weight has been adopted for the front suspension to realize sufficient driving comfort and driving stability.



AC310151AB

REAR SUSPENSION

The torsion beam suspension has been adopted for the rear suspension to realize a large suspension stroke and excellent driving comfort. The suspension with small-size design has provided ample interior space.

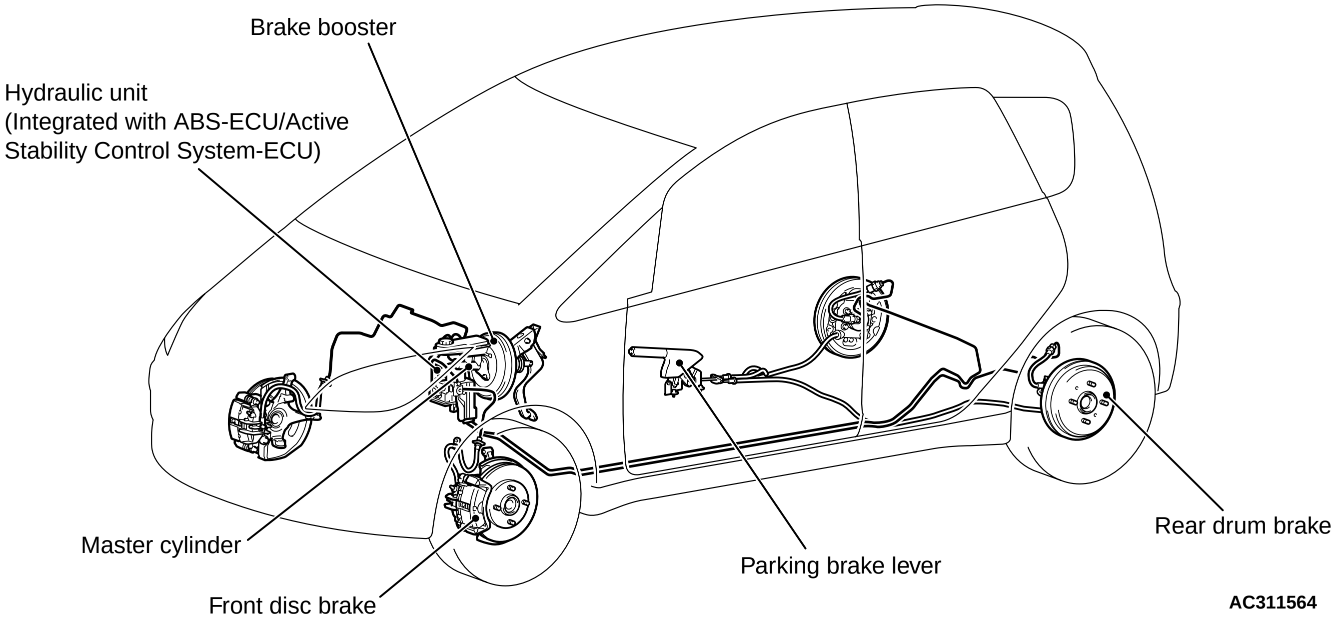


BRAKE

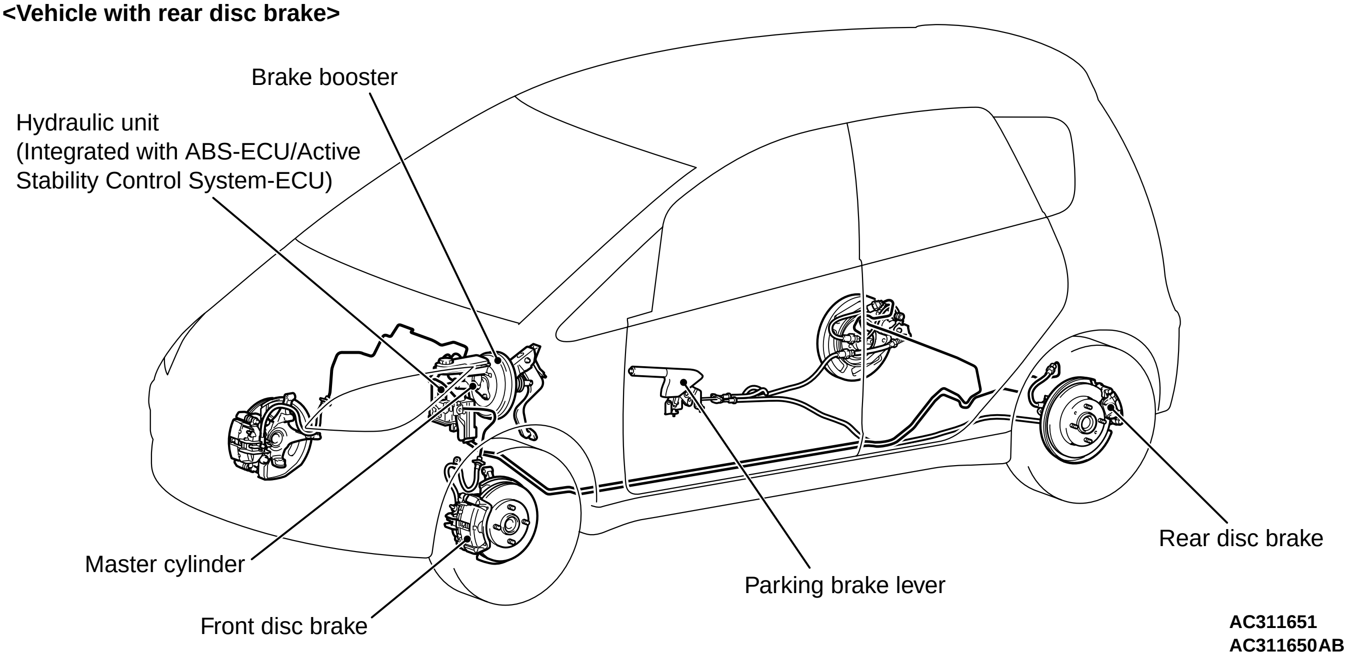
M2000024000043

14-inch ventilated disk brake for the front, 8-inch leading trailing drum brake or 14-inch solid disk brake for the rear have been installed to realize high reliability and durability along with excellent braking performance.

<Vehicle with rear drum brake>



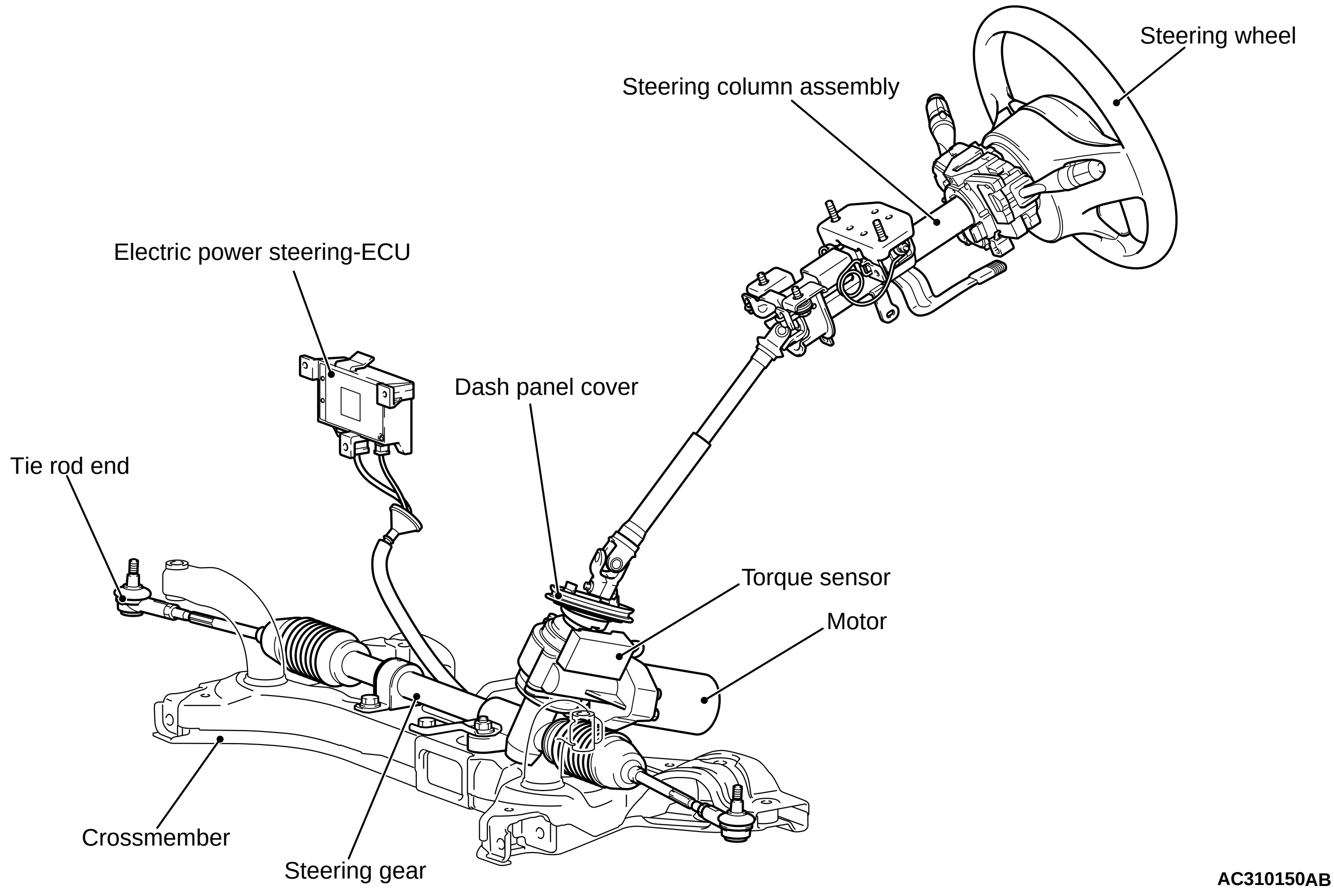
<Vehicle with rear disc brake>



STEERING

M2000040000010

Due to the adoption of electric power steering driven by newly developed pinion shaft, effortless steering wheel manoeuvring at the low speed as well as stable steering wheel manoeuvring at the mid to high speed has been achieved.



LOCAL INTERCONNECT NETWORK (LIN)

M2000041000013

LIN refers to "Local Interconnect Network", a global standard of serial multiplex communication protocol*1 administrated by LIN consortium. A communication circuit employing the LIN protocol connects each ECU, and switch data can be shared among ECUs, which enables more reduction in wiring. Transmission speed is 19.2 kbps.

For COLT, ETACS*2-ECU can receive some input signals through CAN*3 communication in addition to the LIN communication.

*NOTE: *1: The regulations have been decided in detail, from software matters such as the necessary transmission rate for communication, the system, data format, and communication timing control method to hardware matters such as the harness type and length and the resistance values.*

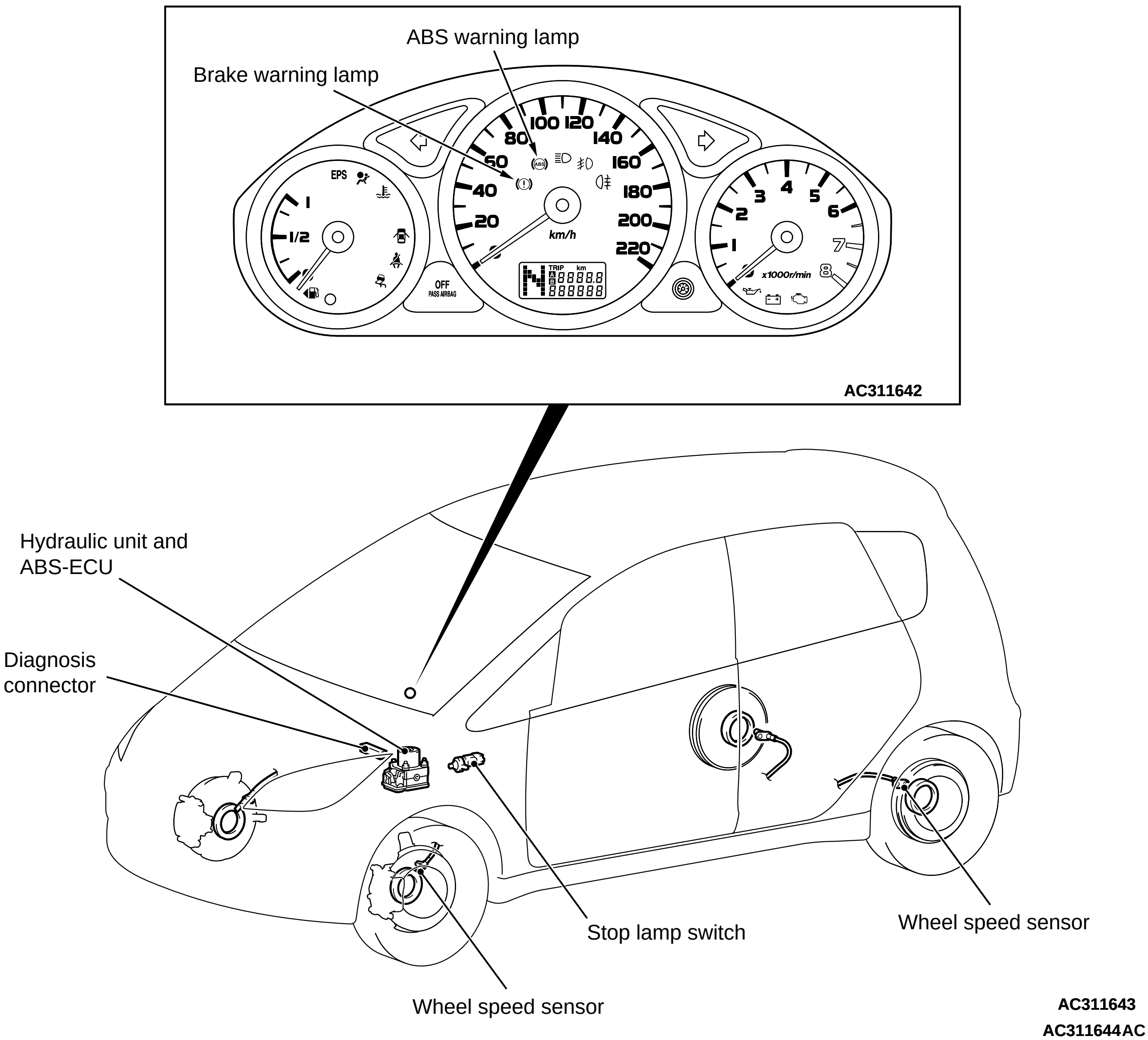
*NOTE: *2: ETACS (Electronic Time and Alarm Control System)*

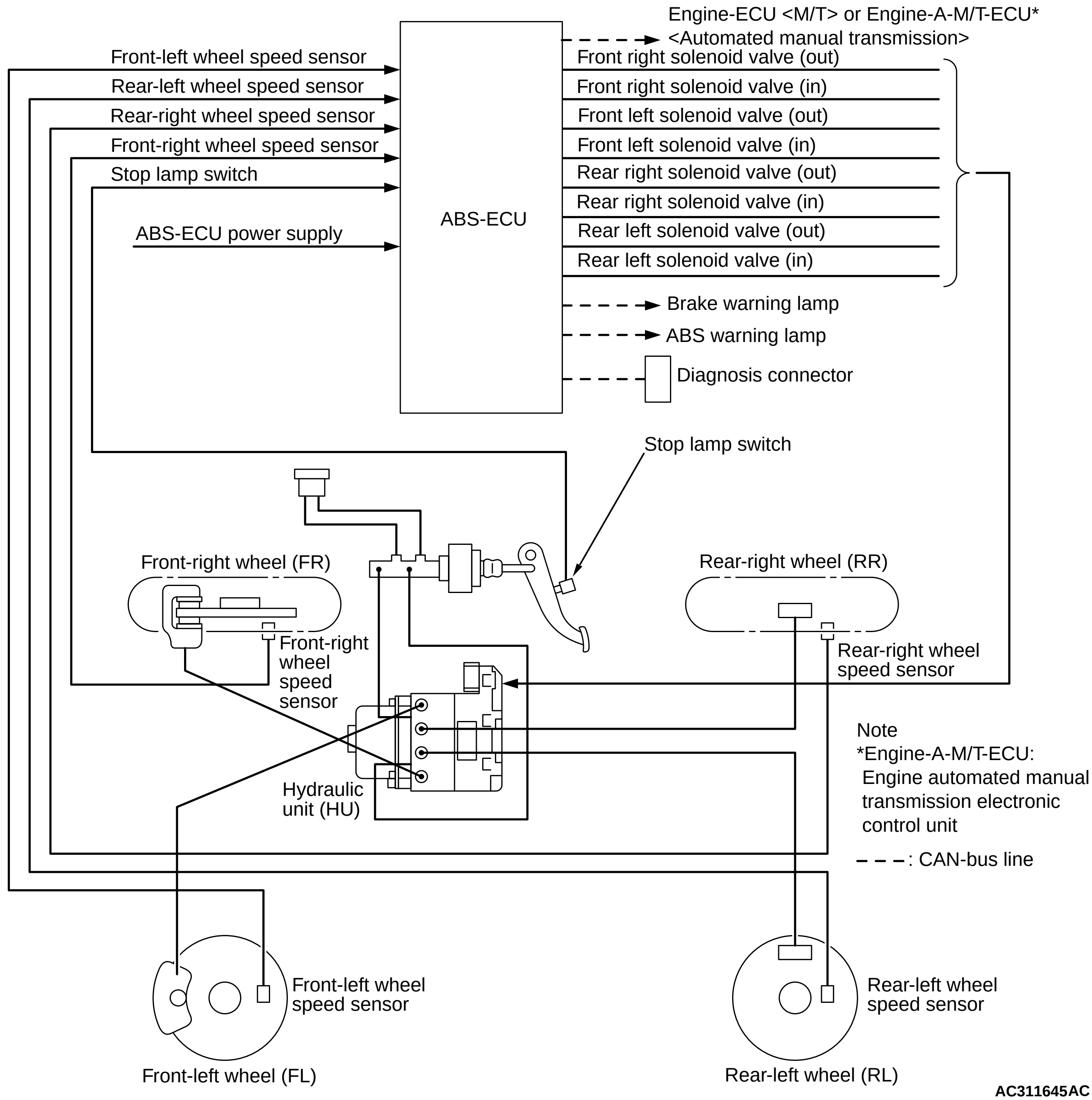
*NOTE: *3: CAN (Controller Area Network)*

ACTIVE SAFETY

M2000031000216

BRAKING SYSTEM





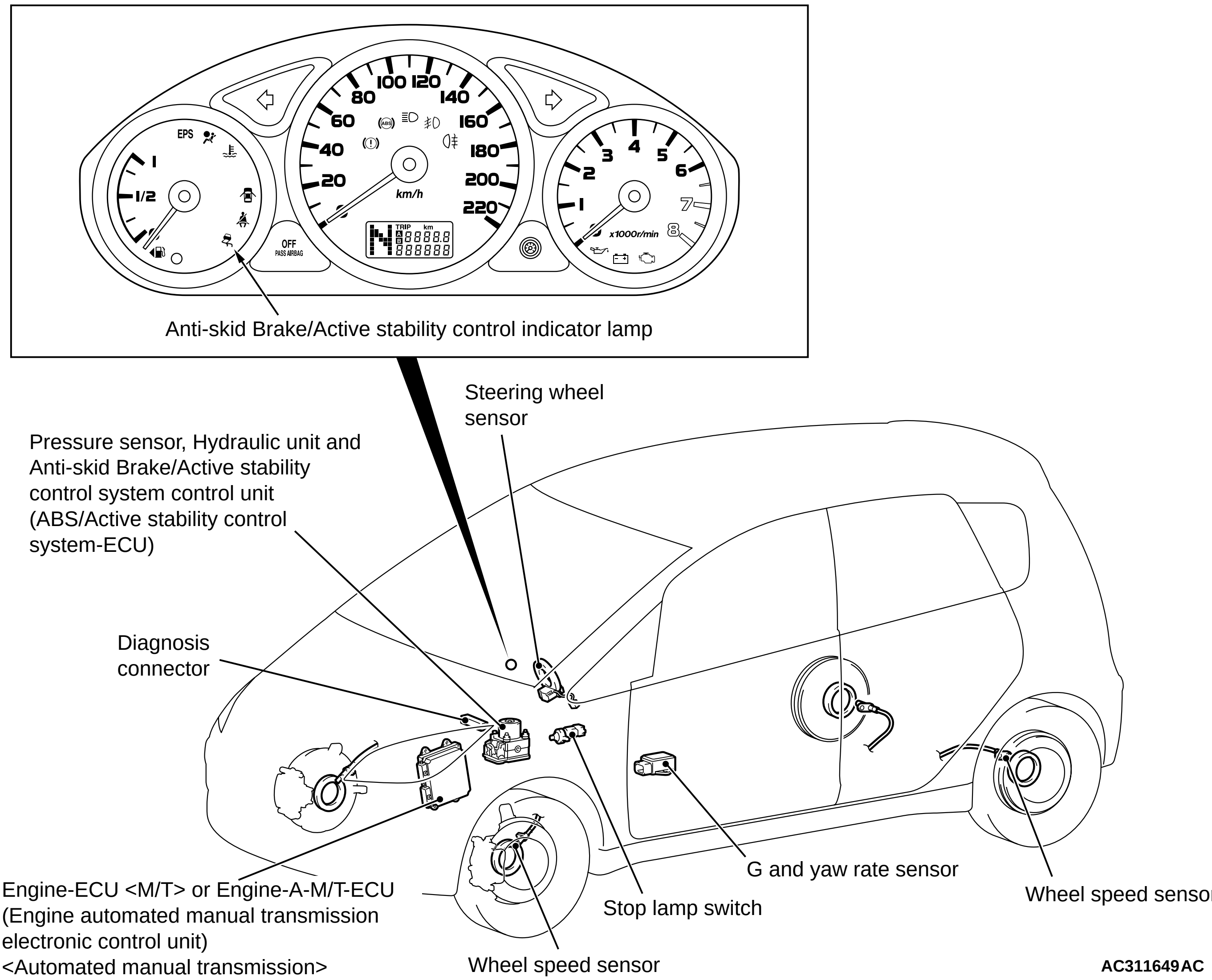
4-WHEEL ANTI-SKID BRAKING SYSTEM (4ABS)

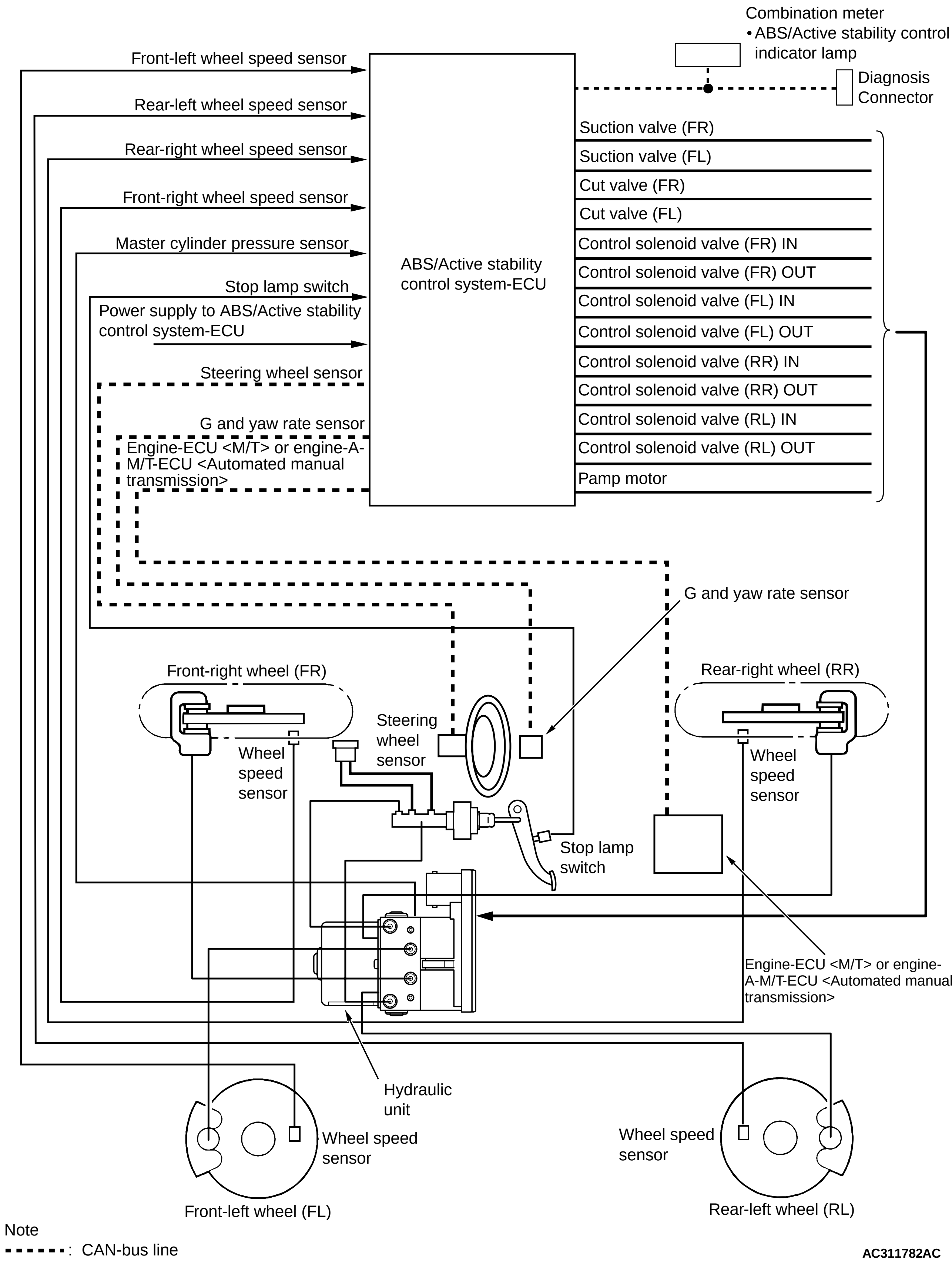
A 4-wheel anti-skid braking system (4ABS) has been adopted to prevent slipping caused by the vehicle wheels locking up, in order to minimize braking distance, and also to maintain a stable vehicle posture and steering performance.

ELECTRONIC BRAKE-FORCE DISTRIBUTION (EBD)

An electronic brake-force distribution (EBD) which makes it possible to maintain the maximum amount of braking force even when the vehicle's load is varied has been adopted.

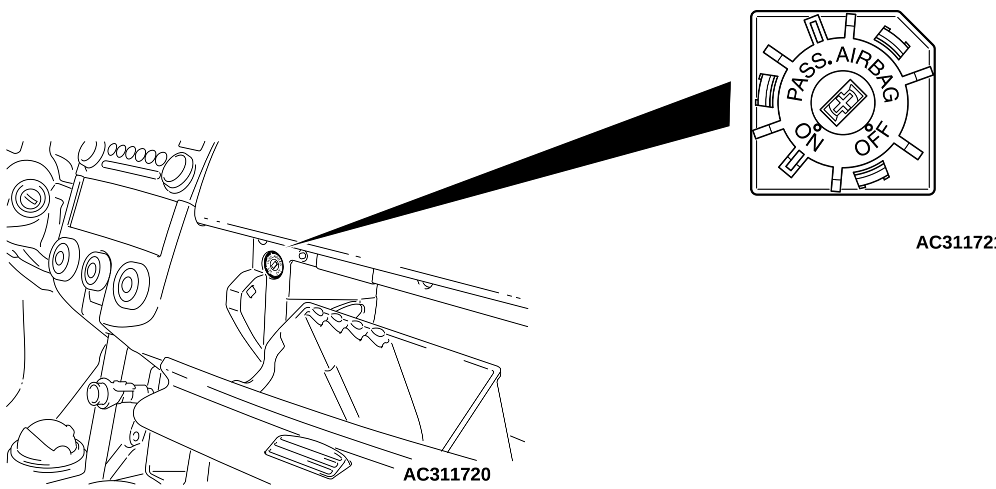
ANTI-SKID BRAKE SYSTEM (ABS)/ACTIVE STABILITY CONTROL SYSTEM




Combination meter
• ABS/Active stability control indicator lamp
Diagnosis Connector
Front-left wheel speed sensor
Rear-left wheel speed sensor
Rear-right wheel speed sensor
Front-right wheel speed sensor
Master cylinder pressure sensor
Stop lamp switch
Power supply to ABS/Active stability control system-ECU
Steering wheel sensor
G and yaw rate sensor
Engine-ECU <M/T> or engine-A-M/T-ECU <Automated manual transmission>
ABS/Active stability control system-ECU
Suction valve (FR)
Suction valve (FL)
Cut valve (FR)
Cut valve (FL)
Control solenoid valve (FR) IN
Control solenoid valve (FR) OUT
Control solenoid valve (FL) IN
Control solenoid valve (FL) OUT
Control solenoid valve (RR) IN
Control solenoid valve (RR) OUT
Control solenoid valve (RL) IN
Control solenoid valve (RL) OUT
Pamp motor
G and yaw rate sensor
Front-right wheel (FR)
Rear-right wheel (RR)
Steering wheel sensor
Wheel speed sensor
Wheel speed sensor
Stop lamp switch
Engine-ECU <M/T> or engine-A-M/T-ECU <Automated manual transmission>
Hydraulic unit
Wheel speed sensor
Wheel speed sensor
Front-left wheel (FL)
Rear-left wheel (RL)
Note
- - - - - -: CAN-bus line
AC311782AC

The Anti-skid Brake System (ABS)/Active stability control system is a combination system of active stability control system and anti-skid brake control system. The active stability control system avoids a dangerous vehicle attitude by limiting the engine output and braking a set of wheels (left front and right rear, or right front and left rear) according to driving conditions. The anti-skid brake control system prevents wheel spinning at vehicle start. ABS/Active stability control system is available for all models as optional equipment.

PASSENGER'S AIR BAG CUT OFF SWITCH



AC312760 AB

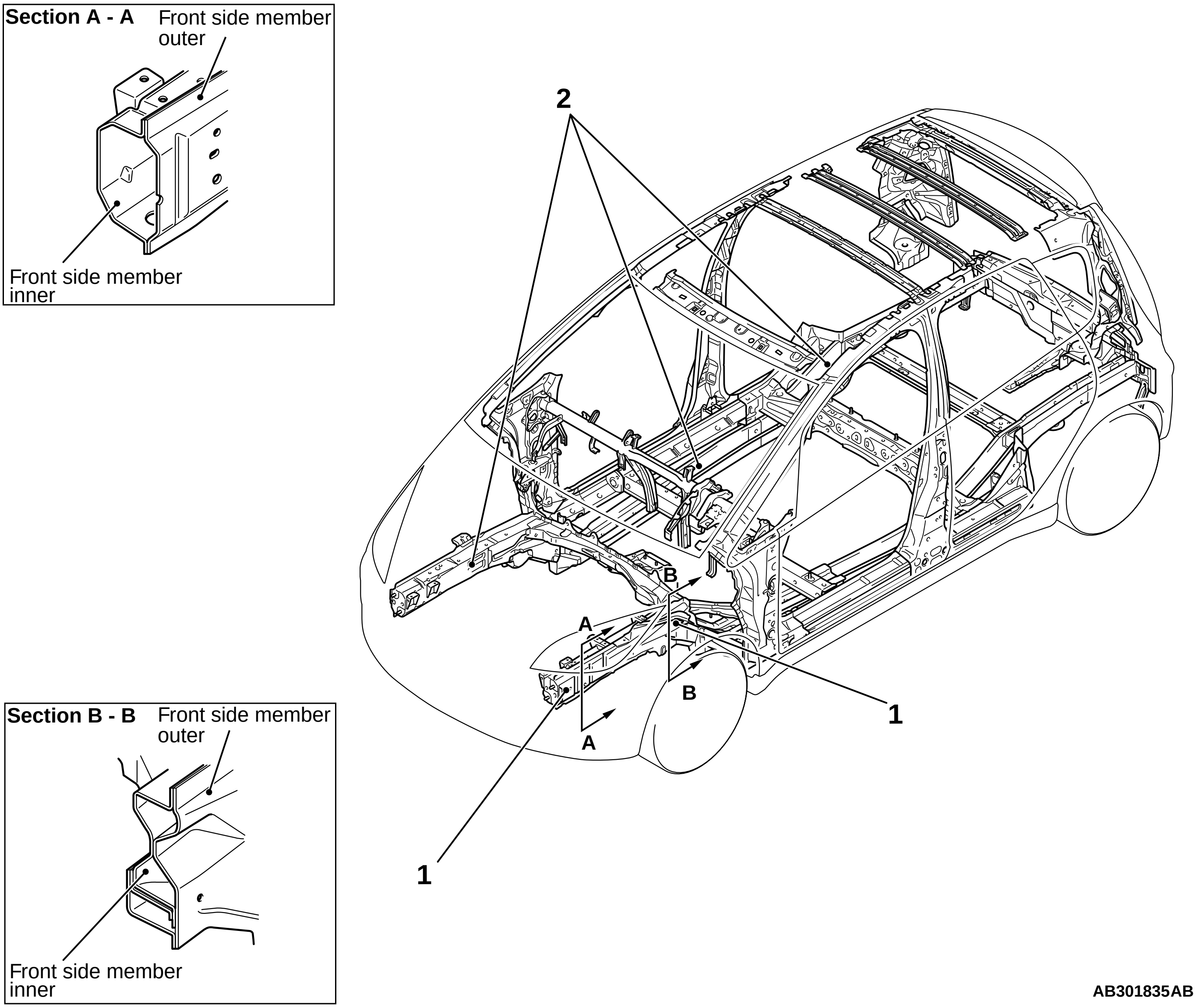
Passenger's air bag cut off switch is located in the glove box.
The passenger's air bag cut off switch can be used to disable the passenger's (front) air bag.

PASSIVE SAFETY

M2000032000208

IMPACT SAFETY BODY

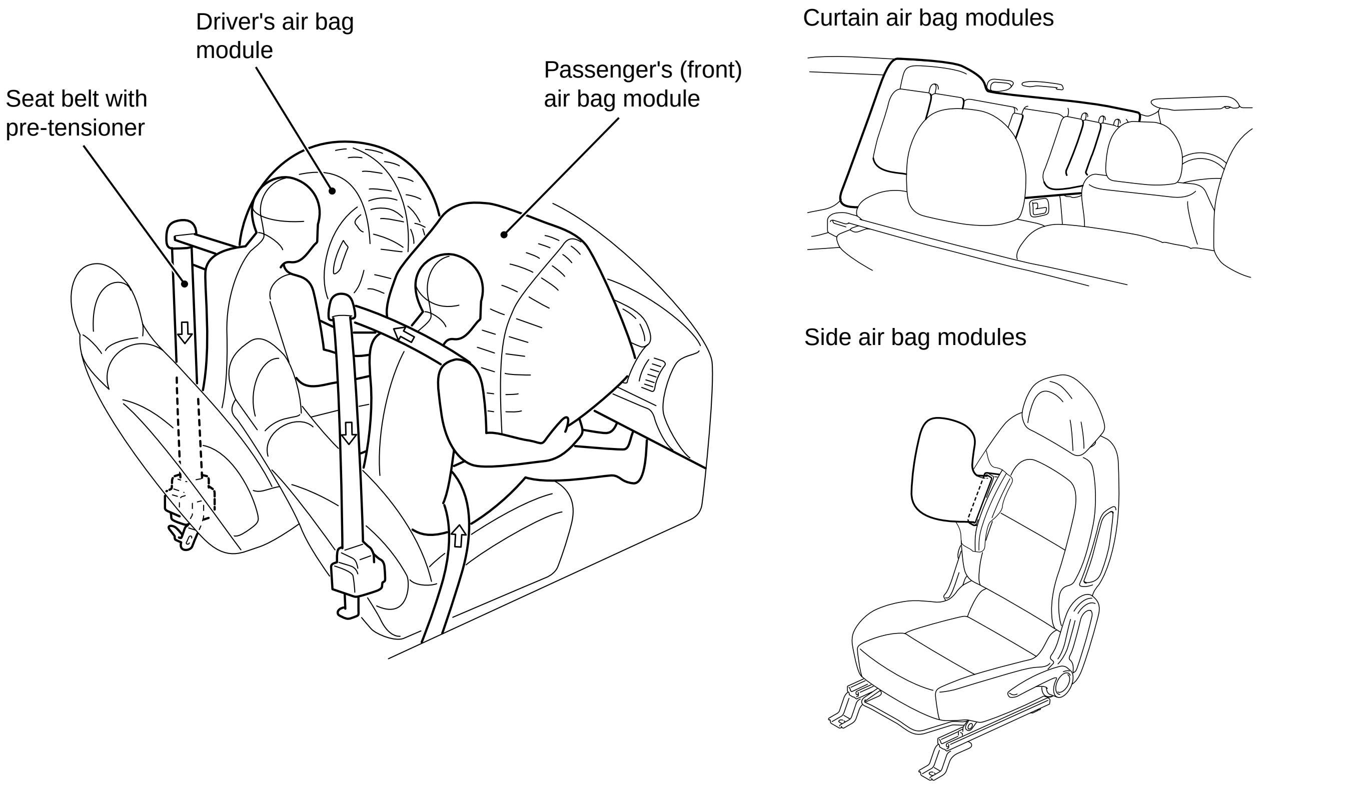
The front and rear structures to absorb high energy, and the highly tough cabin structure reduce the risk of passenger injuries at front-, rear-, and side-impact collisions, secure the space for life protection, and facilitate rescuing passengers.



AB301835AB

1. The octagonal cross section for the front of the front sidemember and 8-shaped cross section for the rear of the front sidemember have been adopted for enlargement so that the applied structures can effectively absorb energy from the impact at the time of collision.
2. Due to the adoption of straightened front side-member and the rear floor sidemember, the structure can effectively absorb energy from the impact at the time of collision.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS) AND FRONT SEAT BELTS WITH PRE-TENSIONER



SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

The SRS is designed to supplement the front seat belts. It eliminates or reduces injury to the front passenger(s) by deploying air bag(s) in case of a head-on collision.

SRS SIDE AIR BAG

Side air bag systems in the front seats are activated when sideward impacts applied to the vehicle exceed a threshold to protect the occupants' upper bodies.

SRS CURTAIN AIR BAG

The curtain air bag systems are activated when sideward impacts applied to the vehicle exceed a threshold, to protect the heads of the occupants in the front and rear seats.

SEAT BELT WITH PRE-TENSIONER

The seat belts with pre-tensioner work simultaneously with the SRS. The pre-tensioner takes up seat belt slack immediately when a collision takes place, restraining the front passengers sooner than the SRS. This prevents the passengers from moving forward.

STEERING SHAFT AND STEERING COLUMN

The impact absorption mechanism in combination of retractable steering shaft and steering column disengagement mechanism has been adopted to alleviate the impact from the steering wheel to the driver.

BRAKE PEDAL

The brake pedal backward movement restraint mechanism to restrain the backward movement of the brake pedal to the minimum at the time of frontal collision has been adopted so that the impact to the lower limbs of the driver can be alleviated.

CHILD SEAT FIXING BAR COMPATIBLE WITH ISO FIX*

The anchor bar has been equipped as standard for easily and securely fixing the child seat compatible with ISO FIX.

*NOTE: *ISO: International Organisation for Standardisation*

REAR SEAT BELT WITH CHILD SEAT FIXING MECHANISM (ALR*)

The child seat fixing mechanism has been adopted to easily and securely fix the child seat that is not compatible with ISO FIX.

*NOTE: *ALR: Automatic Locking Retractor*

POWER WINDOW WITH SAFETY MECHANISM

The power window with safety mechanism has been adopted to automatically roll down and stop the door window glass as soon as the occurrence of jamming is detected at the time of rolling up the door window glass.

SUNROOF WITH SAFETY MECHANISM

The sunroof with safety mechanism has been adopted so that the roof lid glass can move in the reverse direction and stop when application of external force hinders the movement during the sliding to close or tilt down operation.

TRIMS AND HEADLINING

The head impact absorption structure has been adopted for the pillar trim, quarter trim, and headlining so that impact towards the head of a passenger can be reduced.

OTHER SAFETY FEATURES

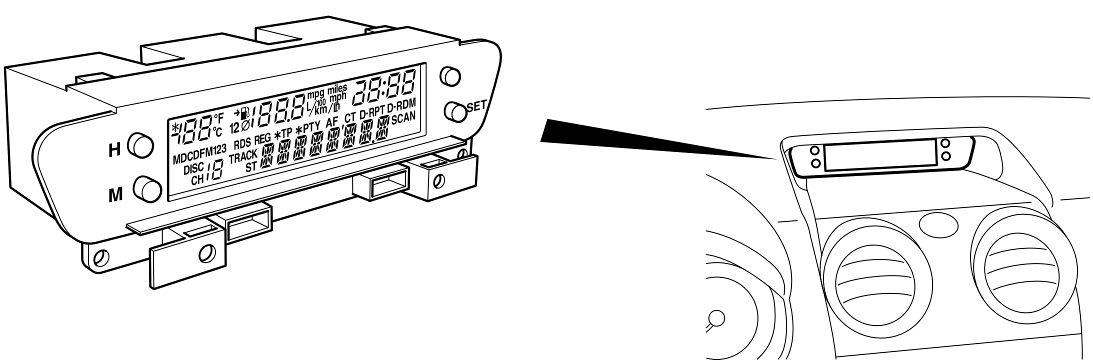
- 3-point ELR seat belts
- Child-protection rear door locks
- Front fog lamps <Optional>
- Rear fog lamp (Driver’s side)

EQUIPMENTS

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MULTI-CENTRE DISPLAY

Multi-centre display

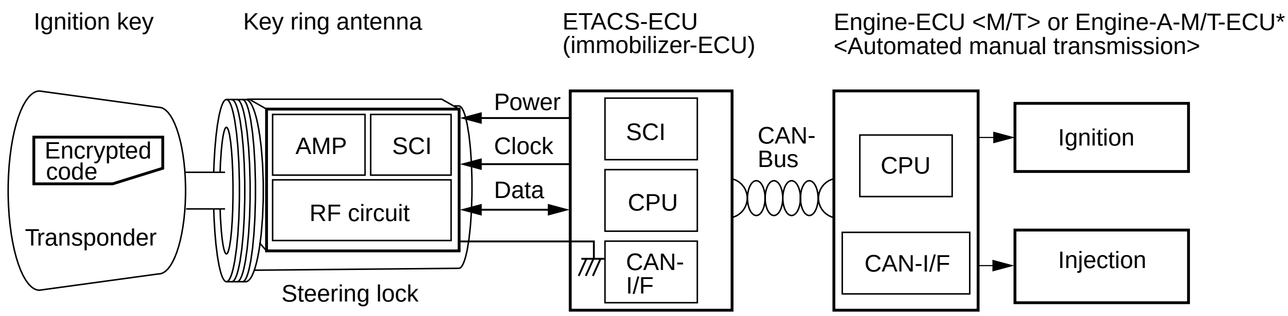


AC311613 AB

The multi-centre display to provide vehicle information in the text form has been equipped on the centre console as standard. The multi-centre display has the following functions:

- Clock
- Outside temperature
- Vehicle information (average speed, instant fuel consumption, remaining distance)
- Audio information

IMMOBILIZER SYSTEM



Note
*Engine-A-M/T-ECU: Engine automated manual transmission electronic control unit

AC312166AC

All models are equipped with the immobilizer system as standard. The immobilizer system is the theft prevention system designed for prohibiting the engine from fuel injection so that the vehicle cannot be started if someone tries to start the engine with something other than the ignition key encrypted for that vehicle.

ENVIRONMENTAL PROTECTION

M2000027000257

Mitsubishi has given careful consideration to protection of natural resources and the environment in the vehicle. Environmentally friendly features are shown below.

IMPROVEMENT ON RECYCLING EFFICIENCY

Category	Part name	Feature
Recyclable materials	Door handle	Thermo plastics-easy recyclable
	Bumper	
	Radiator grille	
	Instrument panel	
Recycled materials	Engine oil level gauge	Recycled from other industries scrap

REDUCTION OF MATERIAL BURDEN ON ENVIRONMENTt

Category	Part name	Feature
Elimination of hazardous substances	Radiator core and heater core	Lead free materials
	Windshield ceramic print	
	Body electrodeposited coating	
	Battery cable connector	
	Wiring harness	
	Water proof film	Polyvinyl chloride (PVC) free material
Prevention of ozone depletion	Air conditioner refrigerant	HFC134a refrigerant

SERVICEABILITY AND RELIABILITY

M2000028000272

MUT-III (MULTI USE TESTER-III)

Comprehensive improvements have been made to the MUT-II, a tester for diagnosing problems with the electronic control system. For easier servicing, the newly developed MUT-III has greatly improved functions and is much easier to use. The MUT-III expands the functions of the MUT-II in the following ways:

1. Interactive Error Diagnosis
   - In response to the nature of the problem, the corresponding troubleshooting page from the maintenance manual is retrieved.
   - Service data is displayed, and from the actuator test screen, the page of the maintenance manual is retrieved for a list of inspection reference values.

2. Service Manual Viewer
   - The technical information manual and workshop manual can be displayed on a personal computer monitor.
3. CAN* bus diagnosis
   - Auto diagnosis function for the CAN communications bus line.

*NOTE: *CAN: Controller Area Network (for further details, refer to GROUP 54C P.54C-2).*

IMPROVED SERVICEABILITY

- Since adoption of unvolatile memory (EEPROM*) helps the learned value not to be initialised when the battery terminal or connector of the control unit is disconnected, maintainability can be improved.

*NOTE: *EEPROM: Electrical Erasable Programmable ROM (information to be memorised can be electronically written into and erased from ROM)*

- Since the adoption of service hole at the quarter trim is designed for removal and installation of the rear shock absorber assembly, maintainability can be improved.
- Since the adoption of electric power steering makes hydraulic pipes and oil pumps unnecessary, maintainability can be improved.
- Since adoption of service hole at the splash shield helps for removal and installation of headlamp bulb (low beam) and front turn signal lamp bulb, maintainability can be improved.
- The instrument lower panel can be removed or installed without using tools at the time of fuse replacement in the junction block.

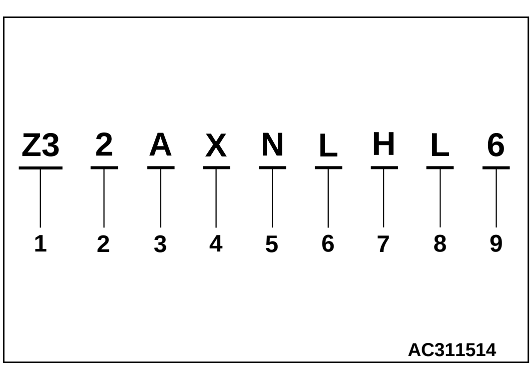
VEHICLE IDENTIFICATION

M2000001000644

MODELS

Model code		Engine model	Transmission model	Fuel supply system
Z32A	XNLHL6	134910-DOHC MIVEC (1,124 mL)	F5MGA <2WD, 5M/T>	MPI
	XNLHR6			
Z34A	XNLHL6	135930-DOHC MIVEC (1,332 mL)		
	XNLHR6			
	XJLHL6		F6SGA <2WD, 6-speed automated manual transmission>	
	XJLHR6			
Z36A	XNLHL6	135950-DOHC MIVEC (1,499 mL)	F5MGA <2WD, 5M/T>	
	XNLHR6			
	XJLHL6		F6SGA <2WD, 6-speed automated manual transmission>	
	XJLHR6			

MODEL CODE

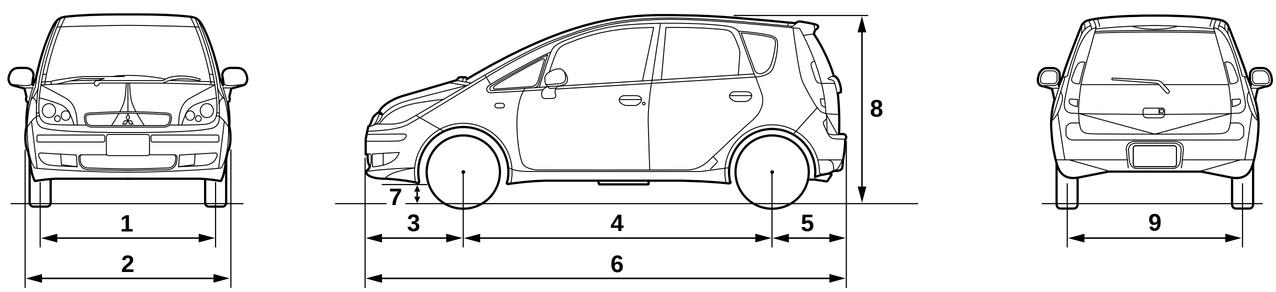


No.	Item		Content
1	Development	Z3	MITSUBISHI COLT
2	Engine type	2	1,124 mL petrol engine
		4	1,332 mL petrol engine
		6	1,499 mL petrol engine
3	Sort	A	Passenger car
4	Body style	X	4-door hatchback

No.	Item		Content
5	Transmission type	N	5-speed manual transmission
		J	6-speed automated manual transmission
6	Trim level	L	L-line
7	Specification engine feature	H	MPI-DOHC MIVEC
8	Steering wheel location	L	Left hand drive
		R	Right hand drive
9	Destination	6	For Europe

MAJOR SPECIFICATIONS

M2000030000268



AC313517AB

Item			Z32A	Z34A		Z36A	
			XNLHL6/R6	XNLHL6/R6	XJLHL6/R6	XNLHL6/R6	XJLHL6/R6
Vehicle dimensions mm	Front track	1	1,460				
	Overall width	2	1,695				
	Front overhang	3	780				
	Wheel base	4	2,500				
	Rear overhang	5	590				
	Overall length	6	3,870				
	Ground clearance	7	154/169*				
	Overall height	8	1,550/1,565*				
	Rear track	9	1,445				

Item			Z32A	Z34A		Z36A	
			XNLHL6/R6	**XNLHL6/R6**	**XJLHL6/R6**	**XNLHL6/R6**	**XJLHL6/R6**
Vehicle weight kg	Kerb weight		965	970	975	990	995
	Max. gross vehicle weight		1,450	1,460		1,465	
	Max. axle weight rating-front		735	745		750	
	Max. axle weight rating-rear		745				
	Max. trailer weight	With brake	1,000				
		Without brake	500				
	Max. trailer-nose weight		50				
Seating capacity			5				
Engine	Model code		134910	135930		135950	
	Total displacement mL		1,124	1,332		1,499	
Transmission	Model code		F5MGA		F6SGA	F5MGA	F6SGA
	Type		5-speed manual transmission		6-speed automated manual transmission	5-speed manual transmission	6-speed automated manual transmission
Fuel system	Fuel supply system		MPI				

*NOTE: *: Vehicles with high ground suspension*